

Table 1 - Monomers Used in Example 2

Monofunctional Monomer:

2-EHA	2-Ethylhexyl acrylate
IOA	Isooctyl acrylate
2-MTA	2-Methoxyethyl acrylate
EA	Ethyl acrylate
MA	Methyl acrylate
CHA	Cyclohexyl acrylate
tBA	t-Butyl acrylate
IBA	Isobornyl acrylate
AA	Acrylic acid
DPA	Dicyclopentanyl acrylate
NVP	N-Vinylpyrrolidone

Polyfunctional Monomer:

HDDA	1,6-Hexanediol diacrylate
NGTD	Neopentylglycolated trimethylolpropane diacrylate
EBAD	Ethoxylated bisphenol A diacrylate
PNGD	Propoxylated neopentyl glycol diacrylate
ETPTA	Ethoxylated trimethylolpropane triacrylate
TMPTA	Trimethylolpropane triacrylate

Table 2 - Resin Formulations Using Urethane Acrylate UX 4101 and
the Mechanical Properties of Films Cured with Electron Beams

X	UX 4101/X	Tg of poly X (°C)	Tensile strength (kg/cm ²)	Elongation (%)	Young's modulus	180° Bend test	Permanent deforma- tion	Shape recovery temperature (°C)
IOA	60/40	-65	20	70	30	o	x	-
2-EHA	60/40	-50	20	90	30	o	x	-
2-MTA	60/40	-50	30	100	30	o	x	-
EA	60/40	-23	40	160	30	o	x	-
MA	60/40	3	200	250	40	o	x	-
CHA	60/40	15	300	240	70	o	x	-
tBA	60/40	41	380	230	300	o	x	-
IBA	60/40	94	410	160	5700	o	Δ	60
AA	60/40	106	680	150	12400	o	o	95
DPA	60/40	120	400	160	4600	o	Δ	50
NVP	60/40	175	560	110	12000	o	o	80
NGTD	70/30	75	320	30	9100	x	x	-
HDDA	70/30		180	30	1500	x	x	-
EBAD	60/40		240	40	5100	x	x	-

Table 3 - Resin Formulations Using Urethane Acrylate UV 7700B and
the Mechanical Properties of Films Cured with Electron Beams

X	UV 7700B/X	Tg of poly X (°C)	Tensile strength (kg/cm ²)	Elongation (%)	Young's modulus	180° Bend test	Permanent deforma- tion	Shape recovery temperature (°C)
2-EHA	60/40	-50	20	40	20	x	x	-
2-MTA	60/40	-50	30	40	20	x	x	-
EA	60/40	-23	60	80	20	o	x	-
MA	60/40	3	130	130	110	o	x	-
tBA	60/40	41	320	110	3800	o	x	-
IBA	60/40	94	300	60	8500	o	Δ	45
DPA	60/40	120	310	50	12400	o	o	45
HDDA	95/ 5		190	60	300	o	x	-
HDDA	90/10		170	40	970	x	x	-
HDDA	75/25		200	20	2800	x	x	-
PNGD	80/20		180	50	320	x	x	-
ETPTA	80/20		220	30	2300	x	x	-